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ABSTRACT

Since 1994, the National Center for Education Statistics (NCES) has surveyed public schools to estimate access to information technology in schools and classrooms. In the fall of each academic year, anew nationally representative sample of approximately 1,000 public schools has been surveyed about Internet access and Internet-related topics. This survey was conducted by NCES using the Fast Response Survey System (FRSS). FRSS is designed to administer short, focused, issue-oriented surveys that require minimal burden on respondents and have a quick turnaround from data collection to reporting. Questionnaires for this survey were mailed to a representative sample of 1,209 public schools in the 50 states and the District of Columbia. Data have been weighted to yield national estimates. This report presents key findings from the survey "Internet Access in U.S. Public Schools, Fall 2001." For selected topics, data from previous FRSS Internet surveys are presented as well. The findings are organized as follows: school connectivity; students and computer access; operating systems, memory capacity, and disk space; special hardware and software for students with disabilities; the Internet as a way to communicate with parents and students; and technologies and procedures to prevent student access to inappropriate material on the Internet. Detailed information about the survey methodology is provided in Appendix A, and the questionnaire is found in Appendix B. (Contains 11 references and 41 tables.) (AEF)

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NCES
National Center for Education Statistics

Internet Access in U.S. Public Schools and Classrooms: 1994–2001

FRSS
Fast Response Survey System

E.D. Tabs

U.S. Department of Education
Office of Educational Research and Improvement
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Internet Access in U.S. Public Schools and Classrooms: 1994–2001

E.D. Tabs

September 2002

FRSS
Fast Response Survey System

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Introduction

Since 1994, the National Center for Education Statistics (NCES) has surveyed public schools to estimate access to information technology in schools and classrooms. In the fall of each academic year, a new nationally representative sample of approximately 1,000 public schools has been surveyed about Internet access and Internet-related topics.

Although some items, such as those on school and classroom connectivity, have been constant on all surveys, new items have been added as technology has changed and new issues have arisen. For example, an item on types of Internet connections was added in 1996 and has remained part of the subsequent surveys, with some modifications. The fall 2001 survey included items on access to the Internet outside of regular school hours; technologies and procedures used to prevent student access to inappropriate material on the Internet; special hardware and software for students with disabilities; operating systems/platforms, memory capacity, and disk space on instructional computers; school Web sites; and laptop loans to students.

This survey was conducted by NCES using the Fast Response Survey System (FRSS). FRSS is designed to administer short, focused, issue-oriented surveys that require minimal burden on respondents and have a quick turnaround from data collection to reporting. Questionnaires for this survey were mailed to a representative sample of 1,209 public schools in the 50 states and the District of Columbia. Data have been weighted to yield national estimates. Detailed information about the survey methodology is provided in appendix A, and the questionnaire can be found in appendix B.

In addition to national estimates, selected survey findings are presented by the following school characteristics:

- instructional level (elementary, secondary);
- school size (enrollment of less than 300, 300 to 999, 1,000 or more);
- locale (city, urban fringe, town, rural);
- percent minority enrollment (less than 6 percent, 6 to 20 percent, 21 to 49 percent, 50 percent or more); and
- percent of students eligible for free or reduced-price lunch (less than 35 percent, 35 to 49 percent, 50 to 74 percent, 75 percent or more), which is used as a measure of poverty concentration at the school.

It is important to note that many of the school characteristics used for independent analysis may also be related to each other. For example, enrollment size and instructional level of schools are related, with secondary schools typically being larger than elementary schools. Similarly, poverty concentration and minority enrollment are related, with schools with a higher minority enrollment also more likely to have a high concentration of poverty. Other relationships between analysis variables may exist. Because of the relatively small sample size used in this study, it is difficult to separate the independent effects of these variables. Their existence, however, should be considered in the interpretation of the data.

All specific statements of comparison made in this report have been tested for statistical significance through chi-square tests, trend analysis tests, and t-tests adjusted for multiple comparisons using the Bonferroni adjustment and are significant at the 95 percent confidence level or better. However, only selected findings are presented for each topic in the report. A detailed description of the statistical tests supporting the survey findings can be found in appendix A.

Selected Findings

This report presents key findings from the survey "Internet Access in U.S. Public Schools, Fall 2001." For selected topics, data from previous FRSS Internet surveys are presented as well. The findings are organized as follows:

- school connectivity;
- students and computer access;
- operating systems, memory capacity, and disk space;
- special hardware and software for students with disabilities;
- the Internet as a way to communicate with parents and students; and
- technologies and procedures to prevent student access to inappropriate material on the Internet.

School Connectivity

School Access

- In fall 2001, 99 percent of public schools in the United States had access to the Internet. When NCES first started estimating Internet access in schools in 1994, 35 percent of public schools had access (table 1). As reported previously (Cattagni and Farris 2001), there have been virtually no differences in school access to the Internet by school characteristics since 1999.

Instructional Room Access

- Public schools have made consistent progress in expanding Internet access in instructional rooms,[1] from 3 percent in 1994 to 77 percent in 2000 and 87 percent in 2001 (table 2).
- In 2001, as in previous years, there were differences in Internet access in instructional rooms by school characteristics. For example, in schools with the highest minority enrollment (50 percent or more), a smaller percentage of instructional rooms were connected to the Internet (81 percent) than in schools with lower minority enrollments (88 to 90 percent of instructional rooms) (table 2).
- A similar pattern occurred by poverty concentration. In 2001, schools with the highest poverty concentration (75 percent or more students eligible for free or reduced-price lunch) had fewer rooms with Internet access than schools with less than 35 percent eligible students and schools

[1]Instructional rooms include classrooms, computer and other labs, library/media centers, and any other rooms used for instructional purposes.

with 35 to 49 percent eligible students (79 percent of instructional rooms compared with 90 and 89 percent, respectively) (table 2).

- Despite these continuing differences, however, the percentage of instructional rooms with Internet access increased between 2000 and 2001 in these schools: from 60 to 79 percent in schools with the highest concentration of poverty, and from 64 to 81 percent in schools with the highest minority enrollment (table 2).

Types of Connections

- Over the years, changes have occurred in the types of Internet connections used by public schools and the speed at which they are connected to the Internet. In 1996, dial-up Internet connections were used by almost three-fourths (74 percent) of public schools having Internet access (Heaviside, Riggins, and Farris 1997). In 2001, the majority of public schools (55 percent) reported using T1/DS1 lines, a continuous and much faster type of Internet connection than dial-up connections, and 5 percent of schools used dial-up connections (table 3).

- In 2001, 85 percent of public schools used broadband connections to access the Internet (table 4). This is an increase from 2000, when 80 percent of the schools were using this type of connection.[2]

- In 2001, as in 2000, the likelihood of using broadband connections increased with school size; in 2001, 72 percent of small schools reported using broadband connections to access the Internet, compared with 96 percent of large schools (table 4).

- The likelihood of using broadband connections also increased with minority enrollment and poverty concentration. For example, in 2001, 81 percent of public schools with the lowest minority enrollment used broadband connections when connecting to the Internet, compared with 93 percent of schools with the highest minority enrollment (table 4).

- The use of broadband connections increased between 2000 and 2001 from 81 percent to 93 percent in schools with the highest minority enrollment (table 4). Similarly, the percent of schools with the highest poverty concentration using broadband connections to access the Internet increased from 75 percent to 90 percent.

Students and Computer Access

According to a recent study, more school-age children in the nation use computers at school than at home (Newburger 2001). The survey "Internet Access in U.S. Public Schools, Fall 2001" obtained information on various measures of student access to computers at school, such as the ratio of students to instructional computers with Internet access, student access to the Internet outside of regular school hours, and laptop loans to students.

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[2] Respondents were instructed to circle as many types of connections as there were in the school. These percentages include schools using only broadband connections, as well as schools using both broadband and narrowband connections. They do not include schools using narrowband connections exclusively. Broadband connections include T3/DS3, fractional T3, T1/DS1, fractional T1, and cable modem connections. In 2001, they also included DSL connections, which had not been an option on the 2000 questionnaire.

Students Per Instructional Computer With Internet Access

- The ratio of students to instructional computers with Internet access was computed by dividing the total number of students in all public schools by the total number of instructional computers with Internet access in all public schools (i.e., including schools with no Internet access).[3] In 2001, the ratio of students to instructional computers with Internet access in public schools was 5.4 to 1, an improvement from the 12.1 to 1 ratio in 1998, when it was first measured (table 5). This level of access corresponds to the 4- to 5-students-per-computer ratio that many experts consider reasonable for effective use of computers in schools (President's Committee of Advisors on Science and Technology 1997).

- However, as in previous years (Cattagni and Farris 2001), there were differences by school characteristics in 2001. For example, the ratio of students to instructional computers with Internet access was higher in schools with the highest poverty concentration (6.8 to 1 compared with 4.9 or 5.6 to 1 in other schools) (table 5). Despite this gap, the ratio improved from 9.1 students in 2000 to 6.8 students per computer in 2001 in schools with the highest poverty concentration.

Availability of Computers With Internet Access Outside of Regular School Hours

In 2000, 21 percent of children in the nation used the Internet at home for school-related tasks (Newburger 2001). Making the Internet accessible outside of regular school hours allows students who would not otherwise have access to the Internet to use this resource for school-related activities such as homework.

- In 2001, 51 percent of public schools with access to the Internet reported that they made computers with access to the Internet available to students outside of regular school hours (table 6). Differences by school characteristics were observed for instructional level and school size. Secondary schools were more likely to make the Internet available to students outside of regular school hours than were elementary schools (78 percent compared with 42 percent). Similarly, large schools (enrollments of 1,000 students or more) reported making the Internet available to students outside of regular school hours more often than did medium-sized and small schools (82 percent compared with 47 percent each for medium-sized and small schools).

- Among schools providing computers with access to the Internet to students outside of regular school hours in 2001, 95 percent made them available after school, 74 percent before school, and 6 percent on weekends (table 6). Availability of computers with Internet access before school decreased as minority enrollment increased—from 84 percent of schools with the lowest minority enrollment to 66 percent of schools with the highest minority enrollment. A

[3] This is one method of calculating students per computer. Another method involves calculating the number of students in each school divided by the number of instructional computers with Internet access in each school and then taking the mean of this ratio across all schools. When "students per computer" was first calculated for this NCES series in 1998, a decision was made to use the first method; this method continues to be used for comparison purposes. A couple of factors influenced the choice of that particular method. There was (and continues to be) considerable skewness in the distribution of students per computer per school. In addition, in 1998, 11 percent of public schools had no instructional computers with Internet access.

similar pattern occurred by poverty concentration of schools for the availability of computers with Internet access before regular school hours.

- The percentage of schools providing students with Internet-connected computers after school ranged from 91 percent (small schools and schools with 50 to 74 percent of students eligible for free or reduced-price lunch) to 98 percent (large schools and schools with the lowest poverty concentration) (table 6).

Laptop Computer Loans

In addition to asking about the availability of computers with Internet access outside of regular school hours, the survey asked whether the schools lent laptop computers to students, how many laptops were available for loan, and the maximum length of time for which they could be borrowed.

- In 2001, 10 percent of public schools lent laptop computers to students (table 7). Schools in rural areas (14 percent) were more likely than city schools (6 percent) and urban fringe schools (7 percent) to lend laptops.

- Schools lending laptop computers to students had, on average, 10 laptops available for loan (not shown in tables). About half (53 percent)[4] of the 10 percent of schools lending laptop computers reported that students could borrow them for 1 week or more (see table 8). Of these schools, 22 percent of schools reported lending laptops for the entire school year (table 8).

Operating Systems, Memory Capacity, and Disk Space

In order to gather information on how current the computers available to students in public schools are, the survey asked respondents to indicate which operating system/platform was used most frequently[5] on instructional computers, as well as the memory capacity and disk space of most instructional computers.

- The single most common response, given by 40 percent of public schools in 2001, was that the operating system most frequently used on their instructional computers was Windows 98 (table 9). Twenty-five percent had Mac OS 7.6 or greater, and 19 percent had Windows 95. Overall, 95 percent of schools reported using Windows 95 or a newer version of Windows, or Mac OS 7.6 or greater most frequently on their instructional computers (see table 10).[6]

- Twelve percent of schools reported that the latest versions of Windows (NT or 2000) were the most commonly found on their instructional computers (table 10). Secondary schools (19

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[4] This estimate is derived from the percent of public schools indicating that students could borrow laptop computers for 1 week, 1 month, 1 semester, the entire school year, or for another length of time. Although estimates for the details are shown in table 8, the total in the text is based on the raw data and because of rounding, it differs trivially (i.e., 1 percent) from the estimate that would be obtained by adding details directly from the table.

[5] The question was worded this way because more than one operating system/platform can be used in one school.

[6] This estimate is derived from the percent of public schools using Windows 95, Windows 98, Windows ME, Windows 2000, Windows NT, or Mac OS 7.6 or greater most frequently on their instructional computers. Although estimates for the details are shown in table 10, the total in the text is based on the raw data and because of rounding, it differs trivially (i.e., 1 percent) from the estimate that would be obtained by adding details directly from the table.

percent) were more likely to report these types of operating systems than were elementary schools (9 percent), which reported using the latest versions of Mac OS (Mac OS 7.6 or greater) more often than secondary schools (28 percent compared with 14 percent).

- Eighty-two percent of schools had 16 megabytes (MB) or higher memory capacity (not shown in tables) on most of their instructional computers. Sixty-three percent of schools had 1 gigabyte (GB) or higher disk space (not shown in tables).

- Overall, 58 percent of the schools used Windows 95 or a more recent version of Windows, or Mac OS 7.6 or greater, combined with 16 MB or higher memory capacity and 1 GB or higher disk space most frequently on their instructional computers (see table 11).[7]

Special Hardware and Software for Students With Disabilities

The Individuals with Disabilities Education Act requires that students eligible for special education under the law receive specially designed instruction: "S*pecially-designed instruction* means adapting, as appropriate to the needs of an eligible child, . . . the content, methodology, or delivery of instruction - (i) to address the unique needs of the child that result from the child's disability; and (ii) to ensure access of the child to the general curriculum, so that he or she can meet the educational standards within the jurisdiction of the public agency that apply to all children" (Special Education Regulation 2001). The survey collected data on whether public schools had students with various disabilities and, if so, whether they had assistive or adaptive hardware and software[8] available for these students.

- In 2001, 95 percent of public schools reported that they enrolled students with learning disabilities (table 12). Sixty-seven percent had students with physical disabilities, 54 percent had students with hearing disabilities, and 46 percent had students with visual disabilities.

- At the national level, depending on the type of disability, 55 to 64 percent of schools that had students with disabilities provided assistive or adaptive hardware, and 39 to 56 percent provided assistive or adaptive software (table 12).

- Special hardware was less likely to be available to students with learning disabilities in schools with the highest minority enrollment than in schools with the lowest minority enrollment (47 percent compared with 61 percent) (table 12).

- The likelihood of having special software available for students with physical disabilities increased with school size: from 40 percent in small schools to 60 percent for large schools (table 12).

- Differences by instructional level also were observed. For example, 48 percent of secondary schools provided special software to students with hearing disabilities, compared with 35 percent of elementary schools (table 12).

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[7] This estimate is derived from the percent of public schools using Windows 95, Windows 98, Windows ME, Windows 2000, Windows NT, or Mac OS 7.6 or greater and having 16 MB or higher memory capacity and 1 GB or higher disk space most frequently on their instructional computers. Although estimates for the details are shown in table 11, the total in the text is based on the raw data and because of rounding, it differs trivially (i.e., 1 percent) from the estimate that would be obtained by adding details directly from the table.

[8] For example, special hardware may include closed-captioned TV, screen readers, or keyboard alternatives, while special software may include Jaws for Windows, Zoomtext, or Overlay Maker.

- Schools with the highest poverty concentration were less likely to have special hardware and software available for students with visual disabilities than were schools with the lowest poverty concentration (52 percent compared with 71 percent for hardware, and 42 percent compared with 63 percent for software) (table 12).

The Internet as a Way to Communicate With Parents and Students

Since 99 percent of public schools were connected to the Internet in 2001, most schools had the capability to make information available to parents and students directly via e-mail or through a Web site. This section presents key findings on the availability of school-sponsored e-mail addresses and on school Web sites.

School-Sponsored E-Mail Addresses

The survey asked whether administrative staff, teachers, and students may have a school-sponsored e-mail address. If the answer was yes, schools were asked whether few, some, or all or most of the members of these three groups had school-sponsored e-mail addresses.

- Overall, 95 percent of public schools with Internet access reported that administrative staff may have a school-sponsored e-mail address (table 13). Ninety-two percent of schools reported that addresses were available for teachers, and 16 percent that they were available for students.

- Among schools that made e-mail available to staff, teachers, and students, respectively, 92 percent said that all or most administrative staff had a school-sponsored e-mail address, and 89 percent reported that all or most teachers had a school-sponsored e-mail address (table 13). Fewer schools (34 percent of the 16 percent providing e-mail addresses to students) indicated that all or most students had a school-sponsored e-mail address.

School Web Sites

The survey asked whether the schools had a Web site, the type of information it carried, how often it was updated, and whether parents and students could communicate with the school through the Web site. In addition, the survey asked whether students helped develop the Web site, helped maintain it, and contributed materials to it.

- Seventy-five percent of public schools had a Web site in 2001 (table 14). There were differences by school characteristics. For example, the likelihood of having a Web site decreased as the poverty concentration of the school increased; 83 percent of schools with the lowest poverty concentration had Web sites compared with 59 percent of schools with the highest poverty concentration.

- Among schools with a Web site, about three-fourths indicated that their Web site contained the schedule of school events/school calendar (76 percent) and the staff directory (73 percent) (table 15). Between 50 percent and 70 percent of schools with a Web site reported that their site contained information on programs and classes (70 percent), information for parents (64

percent), links to Web sites for educational tools for students (61 percent), information on sports and/or clubs (58 percent), school policies/rules (52 percent), and links to, or information on, middle/high schools (50 percent).

- Whether selected topics appeared on schools' Web sites varied by school characteristics. As the poverty concentration of schools increased, the likelihood of having links to Web sites for educational tools for students decreased (from 66 percent in the schools with the lowest poverty concentration to 44 percent in schools with the highest concentration) (table 16).

- Fifty-two percent of the schools having a Web site reported that parents and students could communicate with the school via the site (table 14), and 63 percent reported that the Web site was updated at least monthly (see table 17).[9]

- Among the 75 percent of schools with a Web site, 41 percent reported that students had participated in its creation and 31 percent reported that they participated in its maintenance (table 18). In addition, in 57 percent of the schools, students contributed materials to the Web site. This proportion decreased as the poverty concentration of schools increased.

Technologies and Procedures to Prevent Student Access to Inappropriate Material on the Internet

Given the diversity of the information carried on the Internet, student access to inappropriate material is a major concern of many parents and teachers. Moreover, under the Children's Internet Protection Act (CIPA), no school may receive E-rate[10] discounts unless it certifies that it is enforcing a policy of Internet safety that includes the use of filtering or blocking technology.[11]

- In 2001, almost all public schools with Internet access (96 percent) used various technologies or procedures to control student access to inappropriate material on the Internet (table 19). Across all types of schools, between 92 and 99 percent reported using these technologies or procedures. In addition, 98 percent of these schools used at least one of these technologies or procedures on all Internet-connected computers used by students (table 19).

- Among schools using technologies or procedures to prevent student access to inappropriate material on the Internet, 91 percent reported that teachers or other staff members monitored student Internet access (table 20). Eighty-seven percent used blocking or filtering software, 80 percent had a written contract that parents have to sign, 75 percent had a contract that students have to sign, 46 percent used monitoring software, 44 percent had honor codes, and 26 percent

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[9] This estimate is derived from the percent of public schools updating their Web site monthly, weekly, or daily. Although estimates for the details are shown in table 16, the total in the text is based on the raw data and because of rounding, it differs trivially (i.e., 1 percent) from the estimate that would be obtained by adding details directly from the table.

[10] The Education rate (E-rate) program was established in 1996 to make services, Internet access, and internal connections available to schools and libraries at discounted rates based upon the income level of the students in their community and whether their location is urban or rural.

[11] More information about CIPA (Pub. L. No 106-554) can be found at the Web site of the Schools and Libraries Division (SLD), Universal Service Administrative Company (http://www.sl.universalservice.org/reference/CIPA.asp). The law is effective for Funding Year 4 (July 1, 2001, to June 30, 2002) and for all future years. Schools and libraries receiving only telecommunications services are excluded from the requirements of CIPA.

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used their intranet. [12] As these numbers suggest, most of the schools (96 percent) used more than one procedure or technology as part of their Internet use policy (not shown in tables).

Related Information

This survey is part of an overall NCES effort to track the availability and use of technology in schools. In addition to collecting information on advanced telecommunications and Internet access in a series of public school surveys, NCES has conducted surveys on private schools' use of advanced telecommunications and on teachers' use of technology. "References and Related Reports," below, includes reports on all of these surveys.

[12] An intranet is a controlled computer network similar to the Internet, but accessible only to those who have permission to use it. For example, school administrators can restrict student access to only their school's intranet, which may include information from the Internet chosen by school officials.

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Tables of Estimates and Standard Errors

Table 1.—Percent of public schools with Internet access, by school characteristics: 1994–2001

School characteristic	Public schools with Internet access							
	1994	1995	1996	1997	1998	1999	2000	2001
All public schools	35	50	65	78	89	95	98	99
Instructional level[1]								
Elementary	30	46	61	75	88	94	97	99
Secondary	49	65	77	89	94	98	[2]100	[2]100
School size								
Less than 300	30	39	57	75	87	96	96	99
300 to 999	35	52	66	78	89	94	98	99
1,000 or more	58	69	80	89	95	96	99	100
Locale								
City	40	47	64	74	92	93	96	97
Urban fringe	38	59	75	78	85	96	98	99
Town	29	47	61	84	90	94	98	100
Rural	35	48	60	79	92	96	99	[2]100
Percent minority enrollment[3]								
Less than 6 percent	38	52	65	84	91	95	98	99
6 to 20 percent	38	58	72	87	93	97	100	100
21 to 49 percent	38	55	65	73	91	96	98	100
50 percent or more	27	39	56	63	82	92	96	98
Percent of students eligible for free or reduced-price lunch[4]								
Less than 35 percent	39	60	74	86	92	95	99	99
35 to 49 percent	35	48	59	81	93	98	99	100
50 to 74 percent	32	41	53	71	88	96	97	99
75 percent or more	18	31	53	62	79	89	94	97

[1]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[2]The estimate fell between 99.5 percent and 100 percent and therefore was rounded to 100 percent.

[3]Percent minority enrollment was not available for some schools. In 1994, this information was missing for 100 schools. In subsequent years, the missing information ranged from 0 schools to 46 schools.

[4]Percent of students eligible for free or reduced-price lunch was not available for some schools. In the 1994 survey, free and reduced-price lunch data came from the Common Core of Data (CCD) only and were missing for 430 schools. In reports prior to 1998, free and reduced-price lunch data were not reported for 1994. In 1998, a decision was made to include the data for 1994 for comparison purposes. In subsequent years, free and reduced-price lunch information was obtained on the questionnaire, supplemented, if necessary, with CCD data. Missing data ranged from 1 school (1998) to 10 schools (1999).

NOTE: All of the estimates in this report were recalculated from raw data files using the same computational algorithms. Consequently, some estimates presented here may differ trivially (i.e., 1 percent) from results published prior to 2001.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 51 (1994); "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 57 (1995); "Advanced Telecommunications in U.S. Public Schools, Fall 1996," FRSS 61; "Internet Access in U.S. Public Schools, Fall 1997," FRSS 64; "Internet Access in U.S. Public Schools, Fall 1998," FRSS 69; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 75; "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 1a.—Standard errors of the percent of public schools with Internet access, by school characteristics: 1994–2001

School characteristic	Public schools with Internet access							
	1994	1995	1996	1997	1998	1999	2000	2001
All public schools	1.5	1.8	1.8	1.5	1.3	0.8	0.5	0.3
Instructional level								
Elementary	1.9	2.4	2.1	2.0	1.6	1.0	0.7	0.4
Secondary	2.4	2.7	1.8	1.7	2.1	0.8	0.2	0.2
School size								
Less than 300	3.4	3.9	4.4	3.8	3.4	1.5	1.7	1.0
300 to 999	2.0	2.2	2.0	2.0	1.4	1.0	0.5	0.4
1,000 or more	3.0	4.1	3.4	2.5	2.4	1.7	0.6	(†)
Locale								
City	3.1	4.3	4.5	3.8	2.1	1.5	1.1	1.4
Urban fringe	2.9	3.8	3.3	2.8	2.8	1.2	1.2	0.5
Town	2.3	3.7	4.0	4.6	3.2	2.5	1.2	(†)
Rural	2.7	3.8	3.3	3.2	3.4	1.4	0.9	0.1
Percent minority enrollment								
Less than 6 percent	2.4	3.2	3.4	2.7	2.9	1.5	1.2	0.9
6 to 20 percent	3.3	4.7	3.0	2.7	2.5	1.2	(†)	(†)
21 to 49 percent	3.2	4.1	3.2	4.1	2.5	1.8	1.2	(†)
50 percent or more	2.9	3.8	4.6	4.7	2.9	1.9	1.2	0.9
Percent of students eligible for free or reduced-price lunch								
Less than 35 percent	2.3	2.4	2.2	1.8	2.0	1.1	0.7	0.6
35 to 49 percent	4.6	3.9	4.8	3.9	2.2	0.9	0.7	(†)
50 to 74 percent	5.0	4.6	5.1	4.0	3.0	1.7	1.3	0.5
75 percent or more	4.6	4.4	5.4	5.3	3.7	3.1	1.7	1.1

†Estimate of standard error is not derived because it is based on an estimate of 100 percent.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 51 (1994); "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 57 (1995); "Advanced Telecommunications in U.S. Public Schools, Fall 1996," FRSS 61; "Internet Access in U.S. Public Schools, Fall 1997," FRSS 64; "Internet Access in U.S. Public Schools, Fall 1998," FRSS 69; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 75; "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 2.—Percent of public school instructional rooms with Internet access, by school characteristics: 1994–2001

School characteristic	Instructional rooms with Internet access							
	1994	1995	1996	1997	1998	1999	2000	2001
All public schools	3	8	14	27	51	64	77	87
Instructional level[1]								
Elementary	3	8	13	24	51	62	76	86
Secondary	4	8	16	32	52	67	79	88
School size								
Less than 300	3	9	15	27	54	71	83	87
300 to 999	3	8	13	28	53	64	78	87
1,000 or more	3	4	16	25	45	58	70	86
Locale								
City	4	6	12	20	47	52	66	82
Urban fringe	4	8	16	29	50	67	78	87
Town	3	8	14	34	55	72	87	91
Rural	3	8	14	30	57	71	85	89
Percent minority enrollment[2]								
Less than 6 percent	4	9	18	37	57	74	85	88
6 to 20 percent	4	10	18	35	59	78	83	90
21 to 49 percent	4	9	12	22	52	64	79	89
50 percent or more	2	3	5	13	37	43	64	81
Percent of students eligible for free or reduced-price lunch[3]								
Less than 35 percent	3	10	17	33	57	73	82	90
35 to 49 percent	2	6	12	33	60	69	81	89
50 to 74 percent	4	6	11	20	41	61	77	87
75 percent or more	2	3	5	14	38	38	60	79

[1]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[2]Percent minority enrollment was not available for some schools. In 1994, this information was missing for 100 schools. In subsequent years, the missing information ranged from 0 schools to 46 schools.

[3]Percent of students eligible for free or reduced-price lunch was not available for some schools. In the 1994 survey, free and reduced-price lunch data came from the Common Core of Data (CCD) only and were missing for 430 schools. In reports prior to 1998, free and reduced-price lunch data were not reported for 1994. In 1998, a decision was made to include the data for 1994 for comparison purposes. In subsequent years, free and reduced-price lunch information was obtained on the questionnaire, supplemented, if necessary with CCD data. Missing data ranged from 1 school (1998) to 10 schools (1999).

NOTE: Percentages are based on all schools. All of the estimates in this report were recalculated from raw data files using the same computational algorithms. Consequently, some estimates presented here may differ trivially (i.e., 1 percent) from results published prior to 2001.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 51 (1994); "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 57 (1995); "Advanced Telecommunications in U.S. Public Schools, Fall 1996," FRSS 61; "Internet Access in U.S. Public Schools, Fall 1997," FRSS 64; "Internet Access in U.S. Public Schools, Fall 1998," FRSS 69; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 75; "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 2a.—Standard errors of the percent of public school instructional rooms with Internet access, by school characteristics: 1994–2001

School characteristic	Instructional rooms with Internet access							
	1994	1995	1996	1997	1998	1999	2000	2001
All public schools	0.3	0.7	1.0	1.6	1.8	1.6	1.1	0.9
Instructional level								
Elementary	0.4	1.0	1.5	1.9	2.3	1.8	1.5	1.1
Secondary	0.6	1.0	1.5	1.9	2.1	2.6	1.6	1.2
School size								
Less than 300	0.7	1.6	2.9	4.3	3.7	3.2	2.8	2.1
300 to 999	0.5	1.0	1.2	2.0	2.2	1.9	1.5	1.1
1,000 or more	0.6	1.0	2.1	2.4	3.9	3.0	2.2	1.7
Locale								
City	0.8	1.3	1.6	2.2	3.2	2.6	2.2	2.1
Urban fringe	0.8	1.4	2.2	2.9	2.9	2.5	2.0	1.3
Town	0.6	2.0	1.9	3.9	4.0	3.4	2.6	2.2
Rural	0.4	1.5	2.2	3.6	3.6	3.0	1.7	1.3
Percent minority enrollment								
Less than 6 percent	0.7	1.4	2.4	3.5	2.7	2.3	1.9	1.5
6 to 20 percent	0.8	1.5	1.7	3.0	3.3	3.1	2.1	1.6
21 to 49 percent	1.0	2.1	2.5	2.8	3.7	3.1	2.3	2.0
50 percent or more	0.3	1.0	1.8	1.8	3.2	2.8	2.4	2.0
Percent of students eligible for free or reduced-price lunch								
Less than 35 percent	0.5	1.2	1.6	2.0	2.4	2.3	1.5	1.2
35 to 49 percent	0.4	1.4	2.2	4.3	5.1	3.4	2.9	2.2
50 to 74 percent	1.8	1.9	2.8	3.7	3.9	3.1	2.8	2.4
75 percent or more	0.9	1.0	1.8	2.4	4.3	4.4	3.3	2.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 51 (1994); "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 57 (1995); "Advanced Telecommunications in U.S. Public Schools, Fall 1996," FRSS 61; "Internet Access in U.S. Public Schools, Fall 1997," FRSS 64; "Internet Access in U.S. Public Schools, Fall 1998," FRSS 69; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 75; "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 3.—Percent of public schools with Internet access using various types of connections: 2001

Type of connection	Percent
T3/DS3	5
Fractional T3	1
T1/DS1	55
Fractional T1	14
Cable modem	8
DSL	1
ISDN	5
56KB	6
Dial-up connection	5
Wireless connection	4

NOTE: Percentages are based on the 99 percent of public schools with Internet access. Percentages add to more than 100 because schools may use more than one type of connection.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 3a.—Standard errors of the percent of public schools with Internet access using various types of connections: 2001

Type of connection	Percent
T3/DS3	0.7
Fractional T3	0.3
T1/DS1	1.7
Fractional T1	1.3
Cable modem	1.0
DSL	0.4
ISDN	0.8
56KB	1.2
Dial-up connection	0.9
Wireless connection	0.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 4.—Percent of schools with Internet access using broadband connections, by school characteristics: 2000–2001

School characteristic	2000	2001	Percentage change 2000–2001
All public schools	80	85	+7
Instructional level[1]			
Elementary	77	83	+8
Secondary	89	94	+6
School size			
Less than 300	67	72	+7
300 to 999	83	89	+7
1,000 or more	90	96	+6
Locale			
City	80	88	+10
Urban fringe	85	88	+4
Town	79	83	+5
Rural	75	82	+10
Percent minority enrollment[2]			
Less than 6 percent	76	81	+7
6 to 20 percent	82	85	+3
21 to 49 percent	84	85	+1
50 percent or more	81	93	+15
Percent of students eligible for free or reduced-price lunch[3]			
Less than 35 percent	81	84	+3
35 to 49 percent	82	86	+5
50 to 74 percent	79	84	+5
75 percent or more	75	90	+21

[1]Data for combined schools are included in the totals and in analyses by other school characteristics but are not shown separately.

[2]Percent minority enrollment was not available for 9 schools in 2000 and 31 schools in 2001.

[3]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

NOTE: Respondents were instructed to circle as many types of connections as there were in the school. Percentages include schools using only broadband connections, as well as schools using both broadband and narrowband connections. They do not include schools using narrowband connections exclusively. Broadband connections include T3/DS3, fractional T3, T1/DS1, fractional T1, and cable modem connections. In 2001, they also included DSL connections, which had not been on the 2000 questionnaire. Percentages are based on the percent of schools with Internet access: 98 percent in 2000 and 99 percent in 2001.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 4a.—Standard errors of the percent of schools with Internet access using broadband connections, by school characteristics: 2000–2001

School characteristic	2000	2001	Percentage change 2000–2001
All public schools	1.5	1.6	0.2
Instructional level			
Elementary	1.9	2.0	0.3
Secondary	2.0	1.2	0.2
School size			
Less than 300	4.4	4.3	0.6
300 to 999	1.8	1.4	0.2
1,000 or more	2.4	1.4	0.2
Locale			
City	3.0	2.4	0.5
Urban fringe	2.6	2.1	0.2
Town	4.9	4.6	0.5
Rural	3.5	3.0	0.6
Percent minority enrollment			
Less than 6 percent	3.2	3.6	0.4
6 to 20 percent	2.9	3.0	0.1
21 to 49 percent	2.6	2.7	0.1
50 percent or more	2.6	1.8	0.6
Percent of students eligible for free or reduced-price lunch			
Less than 35 percent	2.3	2.6	0.1
35 to 49 percent	4.0	2.8	0.3
50 to 74 percent	3.8	3.8	0.3
75 percent or more	3.6	2.7	1.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 5.—Ratio of public school students to instructional computers with Internet access, by school characteristics: 1998–2001

School characteristic	Students to instructional computers with Internet access			
	1998	1999	2000	2001
All public schools	12.1	9.1	6.6	5.4
Instructional level[1]				
Elementary	13.6	10.6	7.8	6.1
Secondary	9.9	7.0	5.2	4.3
School size				
Less than 300	9.1	5.7	3.9	4.1
300 to 999	12.3	9.4	7.0	5.6
1,000 or more	13.0	10.0	7.2	5.4
Locale				
City	14.1	11.4	8.2	5.9
Urban fringe	12.4	9.1	6.6	5.7
Town	12.2	8.2	6.2	5.0
Rural	8.6	6.6	5.0	4.6
Percent minority enrollment[2]				
Less than 6 percent	10.1	7.0	5.7	4.7
6 to 20 percent	10.4	7.8	5.9	4.9
21 to 49 percent	12.1	9.5	7.2	5.5
50 percent or more	17.2	13.3	8.1	6.4
Percent of students eligible for free or reduced-price lunch[3]				
Less than 35 percent	10.6	7.6	6.0	4.9
35 to 49 percent	10.9	9.0	6.3	5.2
50 to 74 percent	15.8	10.0	7.2	5.6
75 percent or more	16.8	16.8	9.1	6.8

[1]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[2]Percent minority enrollment was not available for some schools. Over the years, the missing information ranged from 0 schools (1999) to 31 schools (2001).

[3]Percent of students eligible for free or reduced-price lunch was not available for some schools. Over the years, the missing information ranged from 1 school (1998) to 10 schools (1999).

NOTE: Ratios are based on all schools. All of the estimates in this report were recalculated from raw data files using the same computational algorithms. Consequently, some estimates presented here may differ trivially (i.e., 1 percent) from results published prior to 2001.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 1998," FRSS 69; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 75; "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 5a.—Standard errors of the ratio of public school students to instructional computers with Internet access, by school characteristics: 1998–2001

School characteristic	Students to instructional computers with Internet access			
	1998	1999	2000	2001
All public schools	0.6	0.3	0.1	0.1
Instructional level				
Elementary	0.9	0.4	0.2	0.2
Secondary	0.4	0.3	0.2	0.1
School size				
Less than 300	0.7	0.4	0.3	0.3
300 to 999	0.7	0.4	0.2	0.1
1,000 or more	1.0	0.6	0.3	0.2
Locale				
City	1.2	0.8	0.4	0.2
Urban fringe	0.9	0.4	0.2	0.2
Town	1.2	0.6	0.3	0.3
Rural	0.8	0.4	0.3	0.1
Percent minority enrollment				
Less than 6 percent	0.6	0.3	0.2	0.2
6 to 20 percent	1.1	0.5	0.2	0.2
21 to 49 percent	1.1	0.7	0.3	0.2
50 percent or more	1.7	1.1	0.4	0.2
Percent of students eligible for free or reduced-price lunch				
Less than 35 percent	0.6	0.3	0.2	0.2
35 to 49 percent	1.2	0.4	0.4	0.2
50 to 74 percent	1.4	0.8	0.4	0.3
75 percent or more	2.5	2.2	0.7	0.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 1998," FRSS 69; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 75; "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 6.—Percent of public schools allowing students to access the Internet outside of regular school hours, by school characteristics: 2001

School characteristic	Internet available to students outside of regular school hours[1]	Time of availability[2]		
		After school	Before school	On weekends
All public schools	51	95	74	6
Instructional level[3]				
Elementary	42	94	69	4
Secondary	78	97	85	8
School size				
Less than 300	47	91	79	9
300 to 999	47	96	71	4
1,000 or more	82	98	82	7
Locale				
City	49	96	64	4
Urban fringe	45	94	78	4
Town	52	97	78	3
Rural	58	95	76	8
Percent minority enrollment[4]				
Less than 6 percent	50	95	84	6
6 to 20 percent	45	97	74	9
21 to 49 percent	52	95	74	!2
50 percent or more	56	96	66	6
Percent of students eligible for free or reduced-price lunch[5]				
Less than 35 percent	52	98	79	6
35 to 49 percent	50	94	77	4
50 to 74 percent	50	91	73	8
75 percent or more	49	95	61	3

!The coefficient of variation is greater than 50 percent; interpret data with caution.

[1]Percentages are based on the 99 percent of schools with Internet access.

[2]Percentages are based on 50 percent of public schools (99 percent with Internet access times 51 percent allowing students to access the Internet outside of regular school hours).

[3]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[4]Percent minority enrollment was not available for 31 schools.

[5]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 6a.—Standard errors of the percent of public schools allowing students to access the Internet outside of regular school hours, by school characteristics: 2001

School characteristic	Internet available to students outside of regular school hours	Time of availability		
		After school	Before school	On weekends
All public schools	1.8	1.1	2.1	1.1
Instructional level				
Elementary	2.4	1.6	3.2	1.4
Secondary	2.1	1.0	2.2	1.5
School size				
Less than 300	4.2	3.4	5.9	3.6
300 to 999	2.3	1.4	2.8	1.0
1,000 or more	2.9	1.4	2.7	1.7
Locale				
City	4.0	2.7	4.1	1.5
Urban fringe	2.7	2.1	3.1	1.5
Town	5.5	2.5	5.6	1.4
Rural	3.4	1.8	3.8	2.3
Percent minority enrollment				
Less than 6 percent	4.0	2.2	3.6	2.2
6 to 20 percent	3.7	2.1	5.3	3.5
21 to 49 percent	4.2	2.5	6.0	1.2
50 percent or more	3.4	1.7	3.9	1.4
Percent of students eligible for free or reduced-price lunch				
Less than 35 percent	2.3	1.3	3.4	1.7
35 to 49 percent	4.3	2.5	5.5	1.9
50 to 74 percent	4.0	3.3	4.7	3.2
75 percent or more	4.7	2.9	5.6	1.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 7.—Percent of public schools lending laptop computers to students, by school characteristics: 2001

School characteristic	Percent of schools lending laptop computers
All public schools	10
Instructional level[1]	
Elementary	7
Secondary	18
School size	
Less than 300	15
300 to 999	7
1,000 or more	13
Locale	
City	6
Urban fringe	7
Town	13
Rural	14
Percent minority enrollment[2]	
Less than 6 percent	11
6 to 20 percent	9
21 to 49 percent	10
50 percent or more	9
Percent of students eligible for free or reduced-price lunch[3]	
Less than 35 percent	10
35 to 49 percent	9
50 to 74 percent	10
75 percent or more	10

[1]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[2]Percent minority enrollment was not available for 31 schools.

[3]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 7a.—Standard errors of the percent of public schools lending laptop computers to students, by school characteristics: 2001

School characteristic	Percent of schools lending laptop computers
All public schools	1.0
Instructional level	
Elementary	1.1
Secondary	1.9
School size	
Less than 300	3.2
300 to 999	1.1
1,000 or more	1.9
Locale	
City	1.3
Urban fringe	1.4
Town	3.1
Rural	2.2
Percent minority enrollment	
Less than 6 percent	2.1
6 to 20 percent	2.4
21 to 49 percent	2.7
50 percent or more	1.8
Percent of students eligible for free or reduced-price lunch	
Less than 35 percent	1.4
35 to 49 percent	2.6
50 to 74 percent	2.7
75 percent or more	2.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 8.—Percent of public schools lending laptop computers to students for various maximum lengths of time: 2001

Maximum length of time of loan	Percent
Less than 1 week	47
One week	11
One month	!6
One semester	9
The entire school year	22
Other*	4

*For example, 60 days.

!The coefficient of variation is greater than 50 percent; interpret data with caution.

NOTE: Percentages are based on the 10 percent of schools lending laptop computers to students. Details may not add to 100 because of rounding. Standard errors (table 8a) are high because of small sample sizes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 8a.—Standard errors of the percent of public schools lending laptop computers to students for various maximum lengths of time: 2001

Maximum length of time of loan	Percent
Less than 1 week	5.2
One week	3.6
One month	4.1
One semester	3.2
The entire school year	4.5
Other	2.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 9.—Percent of public schools reporting which operating system/platform was used most frequently on their instructional computers: 2001

Operating system/platform	Percent
Windows 2000	8
Windows NT	4
Windows ME	(#)
Windows 98	40
Windows 95	19
Windows 3.1	1
Mac OS 7.6 or greater	25
Mac OS under 7.6	4
Any DOS	(#)
Other	(#)
Don't know	(#)

#Less than 0.5 percent.

NOTE: Details may not add to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 9a.—Standard errors of the percent of public schools reporting which operating system/platform was used most frequently on their instructional computers: 2001

Operating system/platform	Percent
Windows 2000	1.1
Windows NT	0.6
Windows ME	0.1
Windows 98	1.9
Windows 95	1.5
Windows 3.1	0.3
Mac OS 7.6 or greater	1.8
Mac OS under 7.6	0.7
Any DOS	0.1
Other	0.1
Don't know	0.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 10.—Percent of public schools indicating which operating systems/platforms are used most frequently on their instructional computers, by school characteristics: 2001

School characteristic	Windows 95	Windows 98 or ME	Windows NT or 2000	Mac OS 7.6 or greater
All public schools	19	40	12	25
Instructional level[1]				
Elementary	19	37	9	28
Secondary	18	49	19	14
School size				
Less than 300	24	40	12	18
300 to 999	17	39	11	29
1,000 or more	16	46	19	16
Locale				
City	13	37	11	32
Urban fringe	17	38	12	27
Town	15	47	13	21
Rural	26	40	12	20
Percent minority enrollment[2]				
Less than 6 percent	27	38	8	22
6 to 20 percent	15	35	16	30
21 to 49 percent	15	50	10	19
50 percent or more	16	37	13	27
Percent of students eligible for free or reduced-price lunch[3]				
Less than 35 percent	17	36	13	29
35 to 49 percent	20	46	9	19
50 to 74 percent	25	41	13	20
75 percent or more	15	41	9	25

[1]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[2]Percent minority enrollment was not available for 31 schools.

[3]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

NOTE: Percentages may not add to 100 because not all operating system/platform categories are shown in this table. Overall, 4 percent of public schools indicated that they were using Windows 3.1, Mac OS under 7.6, any DOS, or another operating system/platform, or did not know what operating system/platform was used most frequently on their instructional computers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 10a.—Standard errors of the percent of public schools indicating which operating systems/platforms are used most frequently on their instructional computers, by school characteristics: 2001

School characteristic	Windows 95	Windows 98 or ME	Windows NT or 2000	Mac OS 7.6 or greater
All public schools	1.5	1.9	1.3	1.8
Instructional level				
Elementary	2.0	2.3	1.5	2.1
Secondary	1.8	2.6	2.1	1.6
School size				
Less than 300	4.0	4.6	3.2	3.4
300 to 999	1.7	2.1	1.4	2.1
1,000 or more	2.6	3.5	2.2	2.6
Locale				
City	2.2	3.3	2.2	4.0
Urban fringe	2.4	3.3	1.8	2.6
Town	3.8	4.8	3.1	4.6
Rural	3.2	3.6	2.3	2.7
Percent minority enrollment				
Less than 6 percent	2.9	3.5	1.9	2.8
6 to 20 percent	3.2	4.2	2.7	3.7
21 to 49 percent	2.6	4.2	2.0	3.2
50 percent or more	2.7	2.8	1.8	3.3
Percent of students eligible for free or reduced-price lunch				
Less than 35 percent	2.0	2.7	1.9	2.4
35 to 49 percent	3.3	4.0	2.3	3.7
50 to 74 percent	3.6	3.5	2.8	3.4
75 percent or more	3.3	3.5	2.4	3.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 11.—Percent of public schools reporting which operating system/platform, disk space, and memory capacity were used on most of their instructional computers: 2001

Disk space and memory capacity	Operating system/platform			
	Windows 95	Windows 98 or ME	Windows NT or 2000	Mac OS 7.6 or greater
1 gigabyte or higher disk space				
All	11	29	8	14
16 megabytes or higher memory	10	26	7	14
Less than 16 megabytes memory	1	3	1	0
Under 1 gigabyte disk space				
All	5	8	2	10
16 megabytes or higher memory	3	5	1	8
Less than 16 megabytes memory	1	2	!1	1

!The coefficient of variation is greater than 50 percent; interpret data with caution.

NOTE: Details may not add to totals because of rounding. Percentages do not add to 100 because 15 percent of the schools are not included (e.g., those with other types of operating systems/platforms and those that did not know the memory capacity and the disk space of their instructional computers).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 11a.—Standard errors of the percent of public schools reporting which operating system/ platform, disk space, and memory capacity were used on most of their instructional computers: 2001

Disk space and memory capacity	Operating system/platform			
	Windows 95	Windows 98 or ME	Windows NT or 2000	Mac OS 7.6 or greater
1 gigabyte or higher disk space				
All	1.2	1.6	1.0	1.4
16 megabytes or higher memory	1.2	1.5	0.9	1.4
Less than 16 megabytes memory	0.4	0.6	0.3	(†)
Under 1 gigabyte disk space				
All	0.8	0.8	0.6	1.2
16 megabytes or higher memory	0.7	0.7	0.4	1.2
Less than 16 megabytes memory	0.5	0.5	0.4	0.5

†Estimate of standard error is not derived because it is based on an estimate of 0 percent.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 12.—Percent of public schools with students with various disabilities, and of those, percent with special hardware and special software for these students, by type of disability and by school characteristics: 2001

School characteristic	Learning disabilities			Physical disabilities			Hearing disabilities			Visual disabilities		
	Has students with disabilities	Has special hardware[1]	Has special software[1]	Has students with disabilities	Has special hardware[2]	Has special software[2]	Has students with disabilities	Has special hardware[3]	Has special software[3]	Has students with disabilities	Has special hardware[4]	Has special software[4]
All public schools	95	55	53	67	60	48	54	61	39	46	64	56
Instructional level[5]												
Elementary	94	52	50	65	57	45	52	58	35	43	59	53
Secondary	96	64	65	75	67	56	61	66	48	57	75	62
School size												
Less than 300	88	51	47	46	57	40	35	63	28	25	64	44
300 to 999	97	55	54	72	59	48	58	59	39	50	60	54
1,000 or more	98	65	64	85	70	60	73	68	51	72	79	72
Locale												
City	94	49	49	58	58	50	53	55	37	48	60	54
Urban fringe	97	54	53	73	59	47	59	59	38	50	64	55
Town	95	59	58	77	64	48	58	66	42	47	65	61
Rural	93	59	54	62	62	49	47	65	40	39	66	56
Percent minority enrollment[6]												
Less than 6 percent	93	61	56	70	62	50	54	62	38	42	67	57
6 to 20 percent	95	59	62	68	68	54	51	71	50	48	72	66
21 to 49 percent	99	52	53	72	57	49	56	56	36	44	57	54
50 percent or more	93	47	40	58	53	39	54	56	31	49	57	47
Percent of students eligible for free or reduced-price lunch[7]												
Less than 35 percent	95	62	61	75	68	55	59	65	45	48	71	63
35 to 49 percent	94	52	55	66	54	42	56	59	35	47	61	55
50 to 74 percent	95	48	44	62	51	45	45	60	37	38	60	52
75 percent or more	93	48	43	52	54	38	51	52	25	48	52	42

[1]Percentages are based on the 95 percent of public schools with students with learning disabilities.

[2]Percentages are based on the 67 percent of public schools with students with physical disabilities.

[3]Percentages are based on the 54 percent of public schools with students with hearing disabilities.

[4]Percentages are based on the 46 percent of public schools with students with visual disabilities.

[5]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[6]Percent minority enrollment was not available for 31 schools.

[7]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 12a.—Standard errors of the percent of public schools with students with various disabilities, and of those, standard errors of the percent with special hardware and special software for these students, by type of disability and by school characteristics: 2001

School characteristic	Learning disabilities			Physical disabilities			Hearing disabilities			Visual disabilities		
	Has students with disabilities	Has special hardware	Has special software	Has students with disabilities	Has special hardware	Has special software	Has students with disabilities	Has special hardware	Has special software	Has students with disabilities	Has special hardware	Has special software
All public schools	0.8	2.0	1.8	1.7	2.2	2.0	1.6	2.6	2.1	1.6	2.7	2.6
Instructional level												
Elementary	1.1	2.6	2.3	2.1	2.9	2.6	2.1	3.5	2.7	2.0	3.4	3.2
Secondary	1.0	2.4	2.7	2.4	2.7	2.6	2.4	2.9	3.3	2.3	3.0	2.9
School size												
Less than 300	2.9	4.9	5.6	5.2	6.7	6.2	4.3	7.1	7.5	3.9	9.7	10.3
300 to 999	0.7	2.4	2.4	1.7	2.7	2.8	2.0	3.0	2.6	1.8	3.2	2.8
1,000 or more	0.8	3.4	4.0	2.6	3.9	4.2	3.3	4.3	4.6	3.3	3.5	3.8
Locale												
City	1.7	4.9	3.8	3.7	4.8	5.0	3.6	6.1	5.2	3.8	5.3	5.2
Urban fringe	1.2	3.2	2.6	2.4	4.0	3.2	3.1	4.7	3.8	3.4	4.2	4.3
Town	2.9	4.9	5.0	4.6	5.9	6.4	5.2	6.8	6.5	5.6	6.7	7.5
Rural	1.6	3.3	3.7	3.3	3.6	4.3	3.3	4.1	4.4	3.4	5.3	5.6
Percent minority enrollment												
Less than 6 percent	2.0	3.7	3.9	3.7	4.4	4.4	3.4	4.1	4.1	3.4	5.8	6.0
6 to 20 percent	1.8	4.3	3.2	3.6	4.0	4.2	3.8	5.2	4.7	4.3	5.0	4.8
21 to 49 percent	1.2	4.9	4.2	3.1	5.0	4.6	3.9	5.1	5.9	3.6	6.9	6.5
50 percent or more	1.6	3.5	3.6	3.2	4.1	4.3	3.0	4.7	4.2	2.9	4.4	4.6
Percent of students eligible for free or reduced-price lunch												
Less than 35 percent	1.4	2.6	2.4	2.5	3.0	2.8	2.5	3.5	3.0	2.7	3.8	3.3
35 to 49 percent	2.2	4.6	3.7	3.5	4.8	4.8	4.2	5.7	5.4	4.1	5.6	6.4
50 to 74 percent	1.6	4.3	4.5	4.3	4.9	5.3	4.1	5.7	5.2	3.3	6.7	6.7
75 percent or more	2.1	4.0	3.2	4.0	5.2	5.6	4.3	5.0	4.5	3.7	5.8	5.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 13.—Percent of public schools indicating that administrative staff, teachers, and/or students may have a school-sponsored e-mail address and how many within those groups have an e-mail address: 2001

Group	May have a school-sponsored e-mail address[1]	How many have e-mail address:[2]		
		Few	Some	All or most
Administrative staff	95	4	4	92
Teachers	92	3	8	89
Students	16	37	29	34

[1]Percentages are based on the 99 percent of schools with Internet access.

[2]Percentage distributions are based on the 99 percent of schools with Internet access times the percent of schools allowing each group to have a school-sponsored e-mail address. Thus, percentages for administrative staff are based on 94 percent of the schools; percentages for teachers are based on 91 percent of the schools; and percentages for students are based on 16 percent of the schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 13a.—Standard errors of the percent of public schools indicating that administrative staff, teachers, and/or students may have a school-sponsored e-mail address and how many within those groups have an e-mail address: 2001

Group	May have a school-sponsored e-mail address	How many have e-mail address:		
		Few	Some	All or most
Administrative staff	0.8	0.6	0.9	1.0
Teachers	1.0	0.6	1.0	1.1
Students	1.5	5.0	4.3	4.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 14.—Percent of public schools with a Web site, and of those, percent where students or parents can communicate with the school through the Web site, by school characteristics: 2001

School characteristic	School has a Web site[1]	Parents/students can communicate with the school through the Web site[2]
All public schools	75	52
Instructional level[3]		
Elementary	73	52
Secondary	83	54
School size		
Less than 300	63	47
300 to 999	78	52
1,000 or more	87	63
Locale		
City	73	48
Urban fringe	79	50
Town	80	55
Rural	70	57
Percent minority enrollment[4]		
Less than 6 percent	78	55
6 to 20 percent	80	50
21 to 49 percent	78	48
50 percent or more	65	55
Percent of students eligible for free or reduced-price lunch[5]		
Less than 35 percent	83	55
35 to 49 percent	77	53
50 to 74 percent	71	50
75 percent or more	59	46

[1]Percentages are based on the 99 percent of public schools with Internet access.

[2]Percentages are based on 74 percent of public schools (99 percent with Internet access times 75 percent with a Web site).

[3]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[4]Percent minority enrollment was not available for 31 schools.

[5]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 14a.—Standard errors of the percent of public schools with a Web site, and of those, standard errors of the percent where students or parents can communicate with the school through the Web site, by school characteristics: 2001

School characteristic	School has a Web site	Parents/students can communicate with the school through the Web site
All public schools	1.6	2.2
Instructional level		
Elementary	1.9	2.8
Secondary	2.1	3.1
School size		
Less than 300	4.6	4.5
300 to 999	1.5	2.7
1,000 or more	2.5	3.5
Locale		
City	3.2	4.1
Urban fringe	2.2	3.6
Town	4.3	5.2
Rural	3.3	3.9
Percent minority enrollment		
Less than 6 percent	3.3	4.1
6 to 20 percent	3.2	4.6
21 to 49 percent	3.8	5.0
50 percent or more	3.0	3.9
Percent of students eligible for free or reduced-price lunch		
Less than 35 percent	2.4	3.1
35 to 49 percent	4.0	4.8
50 to 74 percent	4.3	5.1
75 percent or more	3.8	5.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 15.—Percent of public schools with various topics appearing on their Web site: 2001

Topic	Percent
Links to district Web page	81
Schedule of school events/school calendar	76
Staff directory	73
Information on programs and classes	70
Information for parents (e.g., PTA, PTO, etc.)	64
Links to Web sites for educational tools for students	61
Information on sports and/or clubs	58
School policies/rules	52
Links to/information on middle/high schools	50
Information on library/media center	49
Presentation of students' special projects/works	47
School newsletter	41
Grade-level learning objectives	25
Information about professional development opportunities for teachers	24
Homework assignments	21
Links to/information on colleges	17
Links to/information on scholarships	17
Links to/information on careers	17
Other*	11

*For example, lunch menu or link to local newspaper.

NOTE: Percentages are based on 74 percent of public schools (99 percent with Internet access times 75 percent with a Web site).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 15a.—Standard errors of the percent of public schools with various topics appearing on their Web site: 2001

Topic	Percent
Links to district Web page	1.7
Schedule of school events/school calendar	1.9
Staff directory	1.9
Information on programs and classes	1.9
Information for parents (e.g., PTA, PTO, etc.)	1.8
Links to Web sites for educational tools for students	2.1
Information on sports and/or clubs	1.9
School policies/rules	2.1
Links to/information on middle/high schools	1.9
Information on library/media center	2.0
Presentation of students' special projects/works	2.5
School newsletter	1.9
Grade-level learning objectives	1.8
Information about professional development opportunities for teachers	1.6
Homework assignments	1.6
Links to/information on colleges	1.2
Links to/information on scholarships	1.4
Links to/information on careers	1.1
Other	1.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 16.—Percent of public schools with various topics appearing on their Web site, by school characteristics: 2001

School characteristic	Selected topics[1]					
	Schedule of school events/ school calendar	Information on programs and classes	Information for parents	Links to Web sites for educational tools for students	Grade-level learning objectives	Homework assignments
All public schools	76	70	64	61	25	21
Instructional level[2]						
Elementary	72	70	67	58	27	18
Secondary	88	73	57	68	20	30
School size						
Less than 300	69	69	52	52	11	15
300 to 999	77	69	68	63	29	22
1,000 or more	85	76	67	61	26	28
Locale						
City	72	73	65	63	28	18
Urban fringe	81	70	71	62	33	24
Town	72	72	60	63	19	22
Rural	76	68	58	56	16	20
Percent minority enrollment[3]						
Less than 6 percent	80	73	61	68	24	26
6 to 20 percent	74	69	62	60	20	20
21 to 49 percent	76	66	71	56	26	22
50 percent or more	76	70	66	57	30	16
Percent of students eligible for free or reduced-price lunch[4]						
Less than 35 percent	82	71	68	66	22	23
35 to 49 percent	70	69	64	62	29	25
50 to 74 percent	71	73	59	57	27	20
75 percent or more	73	65	59	44	26	13

[1]Only a subset of the topics on the questionnaire is included in this table.

[2]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[3]Percent minority enrollment was not available for 31 schools.

[4]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

NOTE: Percentages are based on 74 percent of public schools (99 percent with Internet access times 75 percent with a Web site). Details do not add to 100 because schools could have more than one topic on their Web site.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 16a.—Standard errors of the percent of public schools with various topics appearing on their Web site, by school characteristics: 2001

School characteristic	Selected topics					
	Schedule of school events/ school calendar	Information on programs and classes	Information for parents	Links to Web sites for educational tools for students	Grade-level learning objectives	Homework assignments
All public schools	1.9	1.9	1.8	2.1	1.8	1.6
Instructional level						
Elementary	2.5	2.6	2.5	2.7	2.3	2.0
Secondary	1.7	2.4	2.6	2.6	1.9	2.5
School size						
Less than 300	5.2	4.8	5.4	5.9	3.6	4.7
300 to 999	2.1	2.4	2.2	2.3	2.3	1.8
1,000 or more	2.4	3.8	3.3	3.5	2.9	3.4
Locale						
City	4.2	4.0	3.8	4.5	3.8	2.7
Urban fringe	3.0	2.9	3.2	2.7	3.2	2.9
Town	6.4	6.9	5.4	6.0	4.3	4.4
Rural	3.9	3.4	4.2	3.8	2.4	3.2
Percent minority enrollment						
Less than 6 percent	3.4	3.7	3.6	3.9	3.8	3.3
6 to 20 percent	4.0	3.7	4.4	4.3	2.8	3.5
21 to 49 percent	3.7	4.1	4.4	4.7	4.5	3.8
50 percent or more	3.8	4.0	3.5	3.9	3.5	2.8
Percent of students eligible for free or reduced-price lunch						
Less than 35 percent	2.3	2.8	2.3	3.0	2.5	2.5
35 to 49 percent	3.8	4.2	4.0	3.4	4.2	4.1
50 to 74 percent	4.2	4.3	4.3	5.1	3.9	3.9
75 percent or more	5.6	4.7	5.3	6.0	5.8	3.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 17.—Percent of public schools updating their Web site daily, weekly, monthly, or less than monthly: 2001

Frequency with which the Web site is updated	Percent
Daily	8
Weekly	23
Monthly	31
Less than monthly	37

NOTE: Percentages are based on 74 percent of public schools (99 percent with Internet access times 75 percent with a Web site) and may not add to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 17a.—Standard errors of the percent of public schools updating their Web site daily, weekly, monthly, or less than monthly: 2001

Frequency with which the Web site is updated	Percent
Daily	1.0
Weekly	1.7
Monthly	2.1
Less than monthly	2.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 18.—Percent of public schools where students participated in the creation of the school Web site, participated in its maintenance, and contributed materials to the Web site, by school characteristics: 2001

School characteristic	Students		
	Participated in creation of the Web site	Participated in maintenance of the Web site	Contributed materials to the Web site
All public schools	41	31	57
Instructional level[1]			
Elementary	31	22	51
Secondary	69	58	70
School size			
Less than 300	51	41	55
300 to 999	35	26	55
1,000 or more	56	46	69
Locale			
City	26	24	47
Urban fringe	34	22	50
Town	52	39	61
Rural	54	43	68
Percent minority enrollment[2]			
Less than 6 percent	52	42	66
6 to 20 percent	44	31	53
21 to 49 percent	36	28	57
50 percent or more	28	23	51
Percent of students eligible for free or reduced-price lunch[3]			
Less than 35 percent	47	34	62
35 to 49 percent	43	32	56
50 to 74 percent	34	28	57
75 percent or more	27	25	39

[1]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[2]Percent minority enrollment was not available for 31 schools.

[3]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

NOTE: Percentages are based on 74 percent of public schools (99 percent with Internet access times 75 percent with a Web site).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 18a.—Standard errors of the percent of public schools where students participated in the creation of the school Web site, participated in its maintenance, and contributed materials to the Web site, by school characteristics: 2001

School characteristic	Students		
	Participated in creation of the Web site	Participated in maintenance of the Web site	Contributed materials to the Web site
All public schools	2.0	2.0	1.9
Instructional level			
Elementary	2.5	2.3	2.5
Secondary	2.3	2.5	2.7
School size			
Less than 300	6.0	5.9	5.3
300 to 999	2.2	2.1	2.4
1,000 or more	3.3	3.7	3.2
Locale			
City	3.8	3.4	3.8
Urban fringe	3.0	2.6	3.5
Town	5.3	5.4	6.1
Rural	4.2	4.3	4.0
Percent minority enrollment			
Less than 6 percent	3.8	3.7	3.6
6 to 20 percent	3.8	3.8	4.2
21 to 49 percent	4.6	3.4	5.7
50 percent or more	3.4	3.4	4.1
Percent of students eligible for free or reduced-price lunch			
Less than 35 percent	2.8	2.6	2.5
35 to 49 percent	4.8	4.1	5.2
50 to 74 percent	5.6	4.5	4.6
75 percent or more	5.6	5.3	5.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 19.—Percent of public schools using technologies or procedures to prevent student access to inappropriate material on the Internet, and of those schools, percent using these measures on all computers with Internet access used by students, by school characteristics: 2001

School characteristic	Use technologies/procedures to prevent student access to inappropriate material on the Internet[1]	Use these measures on all computers with Internet access used by students[2]
All public schools	96	98
Instructional level[3]		
Elementary	96	98
Secondary	97	98
School size		
Less than 300	94	96
300 to 999	97	99
1,000 or more	98	98
Locale		
City	93	98
Urban fringe	98	98
Town	96	[4]100
Rural	97	98
Percent minority enrollment[5]		
Less than 6 percent	96	97
6 to 20 percent	98	[4]100
21 to 49 percent	97	99
50 percent or more	95	98
Percent of students eligible for free or reduced-price lunch[6]		
Less than 35 percent	99	99
35 to 49 percent	93	97
50 to 74 percent	98	97
75 percent or more	92	98

[1]Percentages are based on the 99 percent of public schools with Internet access.

[2]Percentages are based on 95 percent of public schools (99 percent with Internet access times 96 percent using technologies or procedures to prevent student access to inappropriate material on the Internet).

[3]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[4]In this case, the estimate fell between 99.5 percent and 100 percent and therefore was rounded to 100 percent.

[5]Percent minority enrollment was not available for 31 schools.

[6]Percent of students eligible for free or reduced-price school was not available for 2 schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 19a.—Standard errors of the percent of public schools using technologies or procedures to prevent student access to inappropriate material on the Internet, and of those schools, standard errors of the percent using these measures on all computers with Internet access used by students, by school characteristics: 2001

School characteristic	Use technologies/procedures to prevent student access to inappropriate material on the Internet	Use these measures on all computers with Internet access used by students
All public schools	0.6	0.5
Instructional level		
Elementary	0.7	0.7
Secondary	0.9	0.6
School size		
Less than 300	2.1	1.8
300 to 999	0.6	0.4
1,000 or more	0.9	0.7
Locale		
City	1.5	0.8
Urban fringe	1.0	1.0
Town	2.4	0.3
Rural	1.1	1.1
Percent minority enrollment		
Less than 6 percent	1.6	1.6
6 to 20 percent	1.4	0.3
21 to 49 percent	1.5	0.7
50 percent or more	1.1	0.9
Percent of students eligible for free or reduced-price lunch		
Less than 35 percent	0.7	0.6
35 to 49 percent	2.4	1.8
50 to 74 percent	1.1	1.5
75 percent or more	1.8	1.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 20.—Percent of public schools with Internet access using various technologies/procedures to prevent student access to inappropriate material on the Internet, by school characteristics: 2001

School characteristic	Monitoring by teachers or other staff	Blocking/ filtering software	Written contract that parents have to sign	Written contract that students have to sign	Monitoring software	Honor code for students	Intranet
All public schools	91	87	80	75	46	44	26
Instructional level[1]							
Elementary	90	85	78	72	43	44	24
Secondary	93	93	87	87	52	45	33
School size							
Less than 300	88	81	73	69	42	38	17
300 to 999	92	88	82	76	47	46	29
1,000 or more	93	93	86	84	48	46	32
Locale							
City	90	83	78	72	49	51	29
Urban fringe	91	88	80	76	44	43	29
Town	84	87	79	76	37	39	19
Rural	95	87	82	78	49	42	24
Percent minority enrollment[2]							
Less than 6 percent	92	86	82	77	47	41	21
6 to 20 percent	93	86	80	75	44	45	30
21 to 49 percent	91	86	79	77	46	46	29
50 percent or more	88	87	78	72	45	44	27
Percent of students eligible for free or reduced-price lunch[3]							
Less than 35 percent	92	87	82	77	45	48	29
35 to 49 percent	94	86	83	78	40	38	23
50 to 74 percent	90	86	81	79	51	40	22
75 percent or more	87	86	73	64	46	45	28

[1]Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

[2]Percent minority enrollment was not available for 31 schools.

[3]Percent of students eligible for free or reduced-price lunch was not available for 2 schools.

NOTE: Percentages are based on 95 percent of public schools (99 percent with Internet access times 96 percent using technologies/procedures to prevent inappropriate material on the Internet).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 20a.—Standard errors of the percent of public schools with Internet access using various technologies/procedures to prevent student access to inappropriate material on the Internet, by school characteristics: 2001

School characteristic	Monitoring by teachers or other staff	Blocking/ filtering software	Written contract that parents have to sign	Written contract that students have to sign	Monitoring software	Honor code for students	Intranet
All public schools	1.1	1.4	1.4	1.4	1.9	1.8	1.6
Instructional level							
Elementary	1.4	1.8	1.8	1.7	2.4	2.3	1.9
Secondary	1.3	1.4	1.7	1.6	2.6	2.6	2.9
School size							
Less than 300	3.2	3.7	4.0	4.0	4.4	4.2	3.7
300 to 999	1.2	1.5	1.7	1.7	2.2	2.0	1.9
1,000 or more	1.5	1.9	2.5	2.7	3.4	3.3	3.3
Locale							
City	2.6	3.3	3.1	3.1	3.9	3.8	3.2
Urban fringe	1.9	2.4	3.0	2.7	3.2	3.3	3.0
Town	4.4	3.6	4.4	4.7	5.1	5.0	4.0
Rural	1.8	3.0	2.7	3.0	3.3	3.5	2.8
Percent minority enrollment							
Less than 6 percent	2.2	2.6	3.1	3.5	3.8	3.7	3.6
6 to 20 percent	2.1	2.8	3.1	3.5	4.0	3.5	3.0
21 to 49 percent	2.5	3.2	4.0	4.1	4.5	3.9	3.6
50 percent or more	2.2	2.4	2.6	2.9	3.4	4.0	3.2
Percent of students eligible for free or reduced-price lunch							
Less than 35 percent	1.7	2.2	2.3	2.4	2.9	2.8	2.9
35 to 49 percent	2.4	2.9	3.7	4.0	4.2	3.9	3.5
50 to 74 percent	2.6	3.1	3.6	3.9	4.3	4.1	3.4
75 percent or more	2.9	2.9	3.9	4.5	3.9	4.5	4.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Table 21a.—Standard errors for data not shown in tables: 2001

Item	Estimate	Standard error
Section: Students and computer access		
Subsection: Laptop computer loans		
Average number of laptop computers available for loan	10	2.2
Of schools lending laptop computers to students, percent reporting that students could borrow laptop computers for 1 week or more	53	5.2
Section: Operating systems, memory capacity, and disk space		
Percent of schools using Windows 95 or a newer version of Windows, or Mac OS 7.6 or greater most frequently on their instructional computers	95	0.8
Percent of schools having 16 MB or higher memory capacity on most of their instructional computers	82	1.5
Percent of schools having 1 GB or higher disk space on most of their instructional computers	63	1.5
Percent of schools using Windows 95 or a more recent version of Windows, or Mac OS 7.6 or greater, combined with 16 MB or higher memory capacity and 1 GB or higher disk space	58	1.5
Section: Internet as a way to communicate with parents and students		
Subsection: School Web sites		
Of the schools with a Web site, percent reporting that the Web site was updated at least monthly	63	2.0
Section: Technologies and procedures to prevent student access to inappropriate material on the Internet		
Percent of schools using more than one procedure or technology	96	0.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82.

Appendix A

Methodology and Technical Notes

Methodology and Technical Notes

The Fast Response Survey System (FRSS) was established in 1975 by the National Center for Education Statistics (NCES), U.S. Department of Education. FRSS is designed to collect small amounts of issue-oriented data with minimal burden on respondents and with a quick turnaround from data collection to reporting.

Sample Selection

The sample of elementary and secondary schools for the FRSS survey on Internet access in public schools was selected from the 1999–2000 NCES Common Core of Data (CCD) Public School Universe File, the most up-to-date file available at the time the sample was drawn. About 88,000 regular schools are contained in the 1999–2000 CCD Public School Universe File. For this survey, regular elementary and secondary/combined schools were selected. Special education, vocational education, and alternative schools were excluded from the sampling frame, along with schools with a highest grade below first grade and those outside the 50 states and the District of Columbia. With these exclusions, the final sampling frame consisted of about 83,100 schools, of which about 62,100 were classified as elementary schools and about 21,000 as secondary/combined schools.

A sample of 1,209 schools was selected from the public school frame. To select the sample, the frame of schools was stratified by instructional level (elementary, secondary/combined schools), enrollment size categories (less than 300 students, 300 to 999, 1,000 to 1,499, 1,500 or more), and percentage of students eligible for free or reduced-price lunch (less than 35 percent, 35 to 49 percent, 50 to 74 percent, 75 percent or more). Schools in the highest poverty category (schools with 75 percent or more students eligible for free or reduced-price lunch) were oversampled to permit analyses for that category.

Respondents and Response Rates

The three-page survey instrument was designed by Westat and NCES. The questions included on the survey addressed access to Internet in public schools and classrooms; the types of Internet connections used; student access to the Internet outside of regular school hours; laptop loans; operating systems/platforms, memory capacity, and disk space used on instructional computers; special hardware and software for students with disabilities; school-sponsored e-mail addresses; school Web sites; and technologies and procedures used to prevent student access to inappropriate material on the Internet.

In September 2001, questionnaires were mailed to the principals of the 1,209 sampled schools. The principal was asked to forward the questionnaire to the technology coordinator or person most knowledgeable about Internet access at the school. Telephone follow-up of nonrespondents was initiated in early October, and data collection was completed in December. Twenty-four schools were outside the scope of the survey, and 1,064 schools completed the survey. Thus, the final response rate was 89.8 percent (1,064 of 1,185 eligible schools). The weighted response rate was 90.3 percent. The weighted

nonresponse rate for individual questionnaire items ranged from 0 to 2.1 percent; imputation for item nonresponse was not implemented.

Sampling and Nonsampling Errors

The survey responses were weighted to produce national estimates (table A). The weights were designed to adjust for the variable probabilities of selection and differential nonresponse. The findings in this report are based on the sample selected and, consequently, are subject to sampling variability. The standard error is the measure of the variability of estimates due to sampling. It indicates the variability of a sample estimate that would be obtained from all possible samples of a given design and size. Standard errors are used as a measure of the precision expected from a particular sample. If all possible samples were surveyed under similar conditions, intervals of 1.96 standard errors below to 1.96 standard errors above a particular statistic would include the true population parameter being estimated in about 95 percent of the samples. This is a 95 percent confidence interval. For example, the estimated percentage of public schools with a Web site in 2001 is 75 percent, and the estimated standard error is 1.6 percent. The 95 percent confidence interval for the statistics extends from 75 – (1.6 times 1.96) to 75 + (1.6 times 1.96), or from 72 to 78 percent. Estimates of standard errors for this report were computed using a technique known as the jackknife replication method. The coefficient of variation ("c.v.," also referred to as the "relative standard error") expresses the standard error as a percentage of the quantity being estimated. The c.v. of an estimate (y) is defined as c.v. = (s.e./y) x 100. Throughout this report, for any coefficient of variation higher than 50 percent, the data are flagged with the note that they should be interpreted with caution, as the value of the estimate is very unstable.

The test statistics used in the analysis were calculated using the jackknife variances and thus appropriately reflected the complex nature of the sample design. In particular, an adjusted chi-square test using Satterthwaite's approximation to the design effect was used in the analysis of the two-way tables. Bonferroni adjustments were also made to control for multiple comparisons where appropriate. For example, for an "experiment-wise" comparison involving g pairwise comparisons, each difference was tested at the 0.05/g significance level to control for the fact that g differences were simultaneously tested. The Bonferroni adjustment results in a more conservative critical value being used when judging statistical significance. This means that comparisons that would have been significant with a critical value of 1.96 may not be significant with the more conservative critical value. For example, the critical value for comparisons between any two of the four categories of poverty concentration is 2.64 rather than 1.96.

When comparing estimates across a family of three or more categories that were ordered, however, such as percent minority enrollment, analysis was performed to test whether the estimates might be ordered more efficiently than with a series of paired comparisons. When percentages were examined relative to a variable with ordered categories, Student's t-test was applied to a measure of a linear trend. The test involves estimating a simple linear regression with a variable representing the order of the categories as the independent variable (e.g., percent minority enrollment), and the percentage of interest (e.g., the percentage of schools with a Web site) as the dependent variable. Before estimating the regression, the sample sizes must be adjusted by estimated design effects to approximately account for the complex sample design. The t statistic is calculated as the ratio of the regression coefficient to its

Table A.—Number and percent of responding public schools in the study sample and estimated number and percent of public schools the sample represents, by school characteristics: 2001

School characteristic	Respondent sample		National estimate	
	Number	Percent	Number	Percent
All public schools	1,064	100	81,066	100
Instructional level				
Elementary	558	52	61,640	76
Secondary	464	44	17,627	22
School size				
Less than 300	148	14	20,665	25
300 to 999	653	61	51,968	64
1,000 or more	263	25	8,433	10
Locale				
City	262	25	17,997	22
Urban fringe	367	34	26,260	32
Town	133	12	10,180	13
Rural	302	28	26,628	33
Percent minority enrollment				
Less than 6 percent	268	25	23,073	28
6 to 20 percent	237	22	19,277	24
21 to 49 percent	210	20	15,550	21
50 percent or more	318	30	20,917	26
Percent of students eligible for free or reduced-price school lunch				
Less than 35 percent	482	45	34,928	43
35 to 49 percent	187	18	14,753	18
50 to 74 percent	195	18	16,627	21
75 percent or more	198	19	14,710	18

NOTE: Details may not add to totals because of rounding or missing data. There were small amounts of missing data for the following variables: percent minority enrollment in school (31 cases) and percent of students eligible for free or reduced-price lunch (2 cases). Forty-two schools were combined schools and therefore are missing in the instructional level counts used here, but those cases were included in the totals and in analyses by other school characteristics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82, 2001.

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standard error. If t is greater than 1.96 (the critical value of t with "infinite" degrees of freedom at a significance level of 0.05), there is evidence of a linear relationship between the two variables. However, not all significant differences are reported.

The survey estimates are also subject to nonsampling errors that can arise because of nonobservation (nonresponse or noncoverage) errors, errors of reporting, and errors made in collection of the data. These errors can sometimes bias the data. Nonsampling errors may include such problems as the difference in the respondents' interpretation of the meaning of the question; memory effects; misrecording of responses; incorrect editing, coding, or data entry; differences related to the particular time the survey was conducted; or errors in data preparation. While general sampling theory can be used in part to determine how to estimate the sampling variability of a statistic, nonsampling errors are not easy to measure and, for measurement purposes, usually require that an experiment be conducted as part of the data collection procedures or that data external to the study be used. To minimize the potential for nonsampling errors, the questionnaire on Internet access in public schools was pretested in 1994, and again each time it was substantially modified. The questionnaire was last pretested for the fall 2001 survey, since a few new topics were introduced in the survey. The pretesting was done with public school technology coordinators and other knowledgeable respondents like those who would complete the survey. During the design of the survey, an effort was made to check for consistency of interpretation of questions and to eliminate ambiguous items. The questionnaire and instructions were intensively reviewed by NCES.

Manual and machine editing of the questionnaire responses were conducted to check the data for accuracy and consistency. Cases with missing or inconsistent items were recontacted by telephone to resolve problems. Data were keyed with 100 percent verification.

Definitions of Analysis Variables

Instructional level—Schools were classified according to their grade span in the 1999–2000 Common Core of Data (CCD) School Universe File.

Elementary school—Had grade 6 or lower and no grade higher than grade 8.
Secondary school—Had no grade lower than grade 7 and had grade 7 or higher.

School size—Total enrollment of students based on the 1999–2000 CCD School Universe File.

Less than 300 students
300 to 999 students
1,000 or more students

Locale—Is defined in the 1999–2000 CCD School Universe File.

City—A central city of a Consolidated Metropolitan Statistical Area (CMSA) or Metropolitan Statistical Area (MSA).

Urban fringe—Any incorporated place, Census-designated place, or non-place territory within a CMSA or MSA of a large or mid-size city and defined as urban by the Census Bureau.

Town—An incorporated place or Census-designated place with a population greater than or equal to 2,500 and located outside a CMSA or MSA.

Rural—Any incorporated place, Census-designated place, or non-place territory designated as rural by the Census Bureau.

Percent minority enrollment—The percent of students enrolled in the school whose race or ethnicity is classified as one of the following: American Indian or Alaskan Native; Asian or Pacific Islander; Black, non-Hispanic; or Hispanic, based on data in the 1999–2000 CCD School Universe File.

Less than 6 percent
6 to 20 percent
21 to 49 percent
50 percent or more

Percent of students eligible for free or reduced-price school lunch—This was based on responses to question 13 on the survey questionnaire; if it was missing from the questionnaire, it was obtained from the 1999–2000 CCD School Universe File. This item served as a measurement of the concentration of poverty at the school.

Less than 35 percent
35 to 49 percent
50 to 74 percent
75 percent or more

Geographic region—One of four regions used by the Bureau of Economic Analysis of the U.S. Department of Commerce, the National Assessment of Educational Progress, and the National Education Association. Obtained from the 1999–2000 CCD School Universe File.

Northeast—Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Southeast—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

Central—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming.

It is important to note that many of the school characteristics used for independent analysis may also be related to each other. For example, enrollment size and instructional level of schools are related, with secondary schools typically being larger than elementary schools. Similarly, poverty concentration and minority enrollment are related, with schools with a higher minority enrollment also more likely to have a high concentration of poverty. Other relationships between analysis variables may exist. Because of the relatively small sample size used in this study, it is difficult to separate the independent effects of these variables. Their existence, however, should be considered in the interpretation of the data.

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Appendix B

Questionnaire

U.S. DEPARTMENT OF EDUCATION NATIONAL CENTER FOR EDUCATION STATISTICS WASHINGTON, D.C. 20006-5651 **INTERNET ACCESS IN U.S. PUBLIC SCHOOLS, FALL 2001** FAST RESPONSE SURVEY SYSTEM	FORM APPROVED O.M.B. NO.: 1850-0733 EXPIRATION DATE: 07/2002

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FRSS Form No. 82, 9/2001

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DEFINITIONS OF TERMS USED IN QUESTIONNAIRE

INSTRUCTIONAL ROOMS AND COMPUTERS

Instructional rooms – refers to rooms in the school building used for any instructional purposes. This includes classrooms, labs, library/media centers, art rooms, rooms used for vocational or special education, etc.

Instructional computers – refers to computers that are used for instructional purposes. Do not include computers used for administrative purposes only.

OPERATING SYSTEM/PLATFORM

Operating system/platform – software platform on top of which application programs can run.

TYPES OF INTERNET CONNECTIONS

T3/DS3 – refers to a dedicated digital transmission of data and voice at the speed of 45 MB per second. T3s are composed of 672 channels.

Fractional T3 – one or more channels of a T3/DS3 line. Used for data and voice transmission at the speed of less than 45 MB per second.

T1/DS1 – refers to a dedicated digital transmission of data and voice at the speed of 1.5 MB per second. T1s are composed of 24 channels.

Fractional T1 – one or more channels of a T1/DS1 line. Used for data and voice transmission at the speed of less than 1.5 MB per second.

Cable modem – refers to a dedicated transmission of data through cable TV wires at a speed of up to 2 MB per second.

DSL (Digital Subscriber Line) – refers collectively to ADSL, SDSL, HDSL, and SDSL. DSLs have a dedicated digital transmission speed of up to 32 MB per second.

ISDN (Integrated Services Digital Network) – sends voice and data over digital telephone lines or normal telephone wires at the speed of up to 128 KB per second.

56 KB – refers to a dedicated digital transmission of data at the speed of 56 KB per second.

Dial-up connection – refers to data transmission through a normal telephone line upon command, at the maximum speed of 56 KB per second.

Wireless connection – refers to the connections to the Internet that do not use wire or cable.

TECHNOLOGIES/PROCEDURES FOR INTERNET ACCESS CONTROL

Blocking software – uses a list of Web sites that are considered inappropriate and prevents access to those sites.

Filtering software – blocks access to sites containing keywords, alone or in context with other keywords.

Monitoring software – records e-mails, instant messages, chats, and the Web sites visited.

Intranet – refers to a controlled computer network similar to the Internet, but accessible only to those who have permission to use it. Intranet system managers can limit user access to Internet material.

STUDENTS WITH DISABILITIES

Students with disabilities – refers to students with impairments that substantially limit one or more of the major life activities. This may include learning disabilities as well as physical impairments.

Special hardware – adaptive or assistive hardware such as closed-captioned TV, screen readers, or keyboard alternatives that facilitate computer use by students with disabilities.

Special software – adaptive or assistive software such as Jaws for Windows, Zoomtext, or Overlay Maker software that facilitate computer use by students with disabilities.

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1. What is the total number of **instructional rooms** in your school? *(Include all rooms used for any instructional purposes: classrooms, computer labs and other labs, library/media centers, etc.)*

_____ instructional rooms

2. How many computers are there in your school? (Count **all** computers, including those used by administrators, teachers, and students.) _____ computers *(If none, please enter "0" and skip to question 30.)*

3. Of these computers, how many are used for **instructional** purposes (*i.e., not used for administrative purposes only*)? _____ instructional computers *(If none, please enter "0" and skip to question 7.)*

4. Which **one** of the following operating systems/platforms is **most frequently** used on the **instructional** computers in your school? *(Circle only one.)*

Windows 2000	1	Mac OS 7.6 or greater	7
Windows NT	2	Mac OS under 7.6	8
Windows ME	3	Any DOS	9
Windows 1998	4	Other (*specify*) _____	10
Windows 1995	5	Don't know	11
Windows 3.1	6		

5. What is the memory on **most** of the **instructional** computers in your school? *(Circle one.)*

Under 8 MB	1	16 MB or higher	3
8 to 15 MB	2	Don't know	4

6. What is the disk space on **most** of the **instructional** computers in your school? *(Circle one.)*

Under 1 GB	1
1 GB or higher	2
Don't know	3

7. Does your school have access to the Internet?

Yes ..... 1 *(Continue with question 8.)* No ..... 2 *(Skip to question 26.)*

8. How many computers in your school currently have Internet access? *(Include instructional and noninstructional computers.)* _____ computers *(If none, please enter "0" and skip to question 26.)*

9. Of the computers with Internet access (question 8), how many are used for **instructional** purposes?

_____ instructional computers *(If none, please enter "0.")*

10. What type(s) of connection does your school use when connecting to the Internet? (*Circle all that apply.*)

a.	T3/DS3	1	g.	ISDN	7
b.	Fractional T3	2	h.	56 KB	8
c.	T1/DS1	3	i.	Dial-up connection (e.g., AOL, Earthlink)	9
d.	Fractional T1	4	j.	Wireless connection	10
e.	Cable modem	5	k.	Other *(specify)* _____	11
f.	DSL	6			

11. How many **instructional rooms** have a computer with Internet access? _____ instructional rooms *(If none, please enter "0.")*

12. Does your school use any technology or other procedure to prevent student access to inappropriate material on the Internet?

Yes ..... 1 *(Continue with question 13.)* No ..... 2 *(Skip to question 15.)*

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13. What technologies or other procedures does your school use to prevent student access to inappropriate material on the Internet? *(Circle one on each line.)*

	Yes	No
a. Blocking/filtering software	1	2
b. Monitoring software	1	2
c. Intranet	1	2
d. Monitoring by teachers or other staff	1	2
e. Written contract that parents have to sign	1	2
f. Written contract that students have to sign	1	2
g. Honor code for students	1	2
h. Other (*specify*) _____	1	2

14. Does your school use these technologies or other procedures to protect students from inappropriate material on **all** computers with Internet access used by students? Yes..... 1 No..... 2

15. Does your school allow students access to its instructional computers with Internet access at times other than regular school hours? Yes..... 1 (*Continue with question 16.*) No..... 2 (*Skip to question 18.*)

16. When are instructional computers with Internet access available to students? *(Circle one on each line.)*

	Yes	No
a. Before school	1	2
b. After school	1	2
c. On weekends	1	2

17. How many instructional computers with Internet access are regularly available to students outside of regular school hours? _____ computers

18. In **column A,** please indicate whether administrative staff, teachers, and students in your school may have a school-sponsored e-mail address. If yes in column A, indicate in **column B** how many administrative staff, teachers, and students have a school-sponsored e-mail address.

Recipient	A. May have school-sponsored e-mail address?		B. If yes, how many administrative staff, teachers, and students?		
	Yes	No	Few	Some	All or most
a. Administrative staff	1	2	1	2	3
b. Teachers	1	2	1	2	3
c. Students	1	2	1	2	3

19. Does your school have a Web site?

Yes.....1 *(Continue with question 20.)* No..... 2 *(Skip to question 26.)*

20. Do the following topics appear on your school's Web site? *(Circle one on each line.)*

	Yes	No
a. School policies/rules	1	2
b. Staff directory	1	2
c. Information on programs and classes	1	2
d. Grade-level learning objectives	1	2
e. Homework assignments	1	2
f. School newsletter	1	2
g. Schedule of school events/school calendar	1	2
h. Information on sports and/or clubs	1	2
i. Links to/information on middle/high schools	1	2
j. Links to/information on colleges	1	2
k. Links to/information on scholarships	1	2
l. Links to/information on careers	1	2
m. Information for parents (e.g., PTA, PTO, etc.)	1	2
n. Presentation of students' special projects/works	1	2
o. Information on library/media center	1	2
p. Links to Web sites for educational tools for students	1	2
q. Information about professional development opportunities for teachers	1	2
r. Links to district Web page	1	2
s. Other *(specify)* _____	1	2

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21. Can students and/or parents communicate with the school through the school's Web site?

Yes ..... 1 No 2

22. Did students participate in the creation/development of the Web site?

Yes ..... 1 No ..... 2 Don't know 3

23. Do students participate in the maintenance of the Web site?

Yes ..... 1 No 2

24. Do students contribute materials to the Web site?

Yes ..... 1 No 2

25. How often is the Web site updated? *(Circle one.)*

Daily ..... 1 Monthly 3
Weekly ..... 2 Less than monthly 4

26. Does your school lend laptop computers to students?

Yes ..... 1 *(Continue with question 27.)* No ..... 2 *(Skip to question 29.)*

27. How many laptops are available for students to borrow? _____ laptops

28. What is the longest time for which a student may borrow a laptop? *(Circle one.)*

Less than one week ..... 1 One semester 4
One week ..... 2 The entire school year 5
One month ..... 3 Other *(specify)* _____ 6

29. In **column A**, please indicate whether your school has students with the listed disabilities.

If yes in column A, indicate in **column B** whether special **hardware** (i.e., adaptive or assistive hardware) is available to students with disabilities in your school.

If yes in column A, indicate in **column C** whether special **software** (i.e., adaptive or assistive software) is available to students with disabilities in your school.

Disabilities	A. Have students with disabilities?		B. Special **hardware** is available to students with disabilities (e.g., closed-captioned TV, screen readers, keyboard alternatives)		C. Special **software** is available to students with disabilities (e.g., Jaws for Windows, Zoomtext, Overlay Maker software)	
	Yes	No	Yes	No	Yes	No
a. Hearing disabilities	1	2	1	2	1	2
b. Learning disabilities	1	2	1	2	1	2
c. Physical disabilities	1	2	1	2	1	2
d. Visual disabilities	1	2	1	2	1	2

30. What percent of the students in your school are eligible for the federally funded free or reduced-price lunch program? _____%

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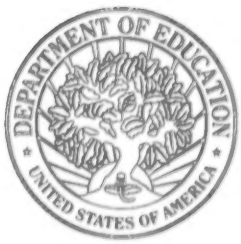

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